

## Claims

1. Method for immobilizing molecules on surfaces comprising the following process steps:

- application of a layer of a hydrophobic polymer to the surface,
- immobilization of molecules on a surface of the layer.

2. Method according to Claim 1, characterized in that the polymer is a polyimide and/or polystyrene.

3. Method according to Claim 1 or 2, characterized in that the polymer layer is applied to the surface only in previously defined regions.

4. Method according to one of the foregoing claims, characterized in that a positive or negative electric charge is imparted to the surface of the polymer layer, at least in sectional fashion, by plasma treatment.

5. Method according to one of the foregoing claims, characterized in that UV-reactive molecules are covalently immobilized by irradiation with UV light.

6. Method according to one of the foregoing claims, characterized in that the polymer layer is activated, at least in sectional fashion, in an oxygen plasma.

7. Method according to one of the foregoing claims, characterized in that a portion of the surface of the polymer layer is utilized for application with an integrated circuit (IC) or a microsystem.